

Before You Start

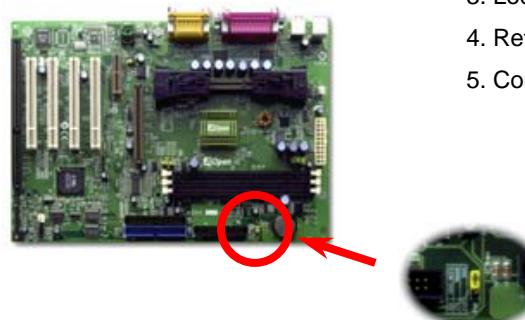
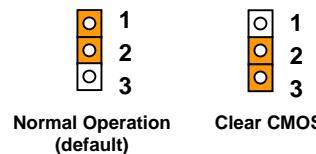


Everything you need to boot this motherboard is included in this Easy Installation Guide. For more information, a complete [Online User's Manual](#) can be found in the [Bonus Pack CD Disc](#). Thanks for the help of saving our earth.

Accessory Checklist

- Hard Drive IDE Cable x 1
- ATA/66 IDE Cable x 1
- Floppy Drive Cable x 1
- Bonus Pack CD disc x 1
- This Easy Installation Guide x 1

JP14 Clear CMOS



You can clear CMOS to restore system default setting. To clear the CMOS, follow the procedure below.

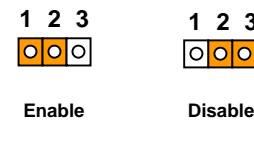
1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR2.
3. Locate JP14 and short pins 2-3 for a few seconds.
4. Return JP14 to its normal setting by shorting pins 1-2.
5. Connect ATX power cable back to connector PWR2.



Tip: When should I Clear CMOS?

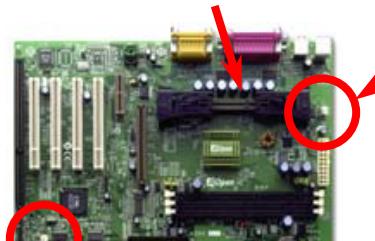
1. Boot fail because of overclocking...
2. Forget password...
3. Troubleshooting...

JP12 Enable/Disable Onboard Audio

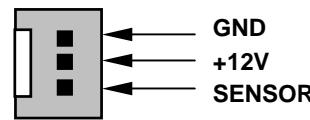


This motherboard has AC97 sound onboard. JP12 is used to enable or disable onboard AD1881 CODEC chip. If you select Disable, you can use your preferred AMR sound card.

Installing CPU and Fan



Plug CPU to slot1 connector. Be careful of CPU orientation. Plug in the fan cable to the 3-pin **CPUFAN** or **FAN** connector.



Note: Some CPU fans do not have sensor pin, so that cannot support fan monitoring.



Auto-Detect CPU Core Voltage

This motherboard supports Pentium II / Pentium III CPU VID function. The CPU core voltage will be automatically detected and the range is from 1.3V to 3.5V.

Setting CPU Frequency

The CPU frequency selection is set by going into:

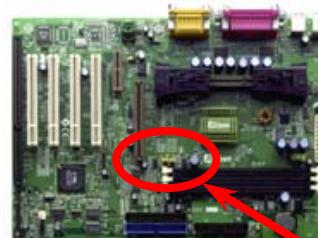
BIOS Setup > Chipset Features Setup > CPU Voltage Setting

CPU Ratio	1.5x, 2x, 2.5x, 3x, 3.5x, 4x, 4.5x, 5x, 5.5x, 6x, 6.5x, 7x, 7.5x, and 8x
CPU FSB	66.8, 75, 83.3, 100, 103, 105, 110, 112, 115, 120, 124, 133, 140, and 150 MHz

Core Frequency = CPU FSB Clock * CPU Ratio

CPU Type	FSB Clock	Ratio
CELERON 300A	66MHZ	4.5x
CELERON 433	66MHZ	6.5x
Pentium II 350	100MHZ	3.5x
Pentium II 400	100MHZ	4x
Pentium II 450	100MHZ	4.5x
Pentium!!! 450	100MHZ	4.5x
Pentium!!! 500	100MHZ	5x
Pentium!!! 550	100MHZ	5.5x
Pentium!!! 600	100MHZ	6x
Pentium!!! 533	133MHZ	4x
Pentium!!! 600	133MHZ	4.5x
Pentium!!! 600E	100MHZ	6x
Pentium!!! 600EB	133MHZ	4.5x
Pentium!!! 650E	100MHZ	6.5x
Pentium!!! 667EB	133MHZ	5x
Pentium!!! 700E	100MHZ	7x
Pentium!!! 733EB	133MHZ	5.5x
Pentium!!! 750E	100MHZ	7.5x
Pentium!!! 800E	100MHZ	8x
Pentium!!! 800EB	133MHZ	6x

JP23/JP29 HOST/PCI Clock Ratio



This jumper is used to specify the relationship of PCI and host clock. Generally speaking, we suggest you do not change the default setting. But for overclocking, changing these jumper settings becomes necessary. For example, you must set JP29 to "5-6" and JP23 to "3-4" if you want to overclock a 66MHz FSB clock CPU to 100MHz or higher.



JP23	JP29	JP23	JP29	JP23	JP29	JP23	JP29
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
[] []	[] []	[] []	[] []	[] []	[] []	[] []	[] []
5 6	5 6	5 6	5 6	5 6	5 6	5 6	5 6

Auto (default) 4X (133~150MHz) 3X (100~124MHz) 2X (66~83MHz)

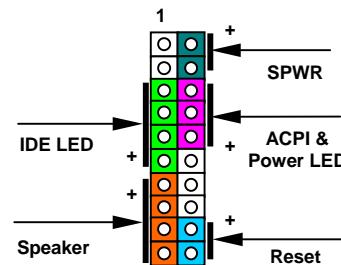
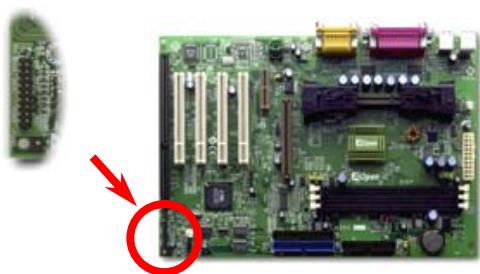
Clock Ratio	CPU (Host)	PCI	AGP	Memory
2X	66	33	66	PCI x2 or x3
3X	100	33	66	PCI x2 or x3 or x4
3X, overclocking	112	37.3	74.6	PCI x2 or x3 or x4
4X	133	33	66	PCI x3 or x4
4X, overclocking	150	37.5	75	PCI x3 or x4

Warning: VIA 694x chipset supports maximum 133MHz FSB and 66MHz AGP clock, higher clock setting may cause serious system damage.



Tip: If your system hangs or fails to boot because of overclocking, simply use <Home> key to restore the default setting (233MHz).

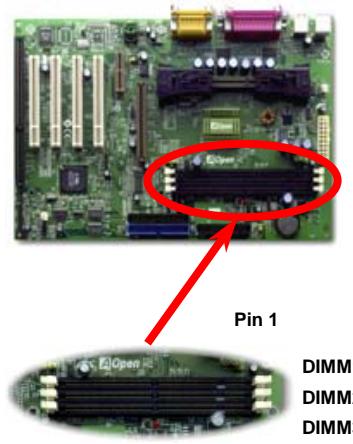
Connecting Front Panel Cable



Attach the power LED, speaker, and reset switch connectors to the corresponding pins. If you enable "Suspend Mode" item in BIOS Setup, the ACPI & Power LED will keep flashing while the system is in suspend mode.

Locate the power switch cable from your ATX housing. It is 2-pin female connector from the housing front panel. Plug this connector to the soft-power switch connector marked **SPWR**.

Configuring System Memory

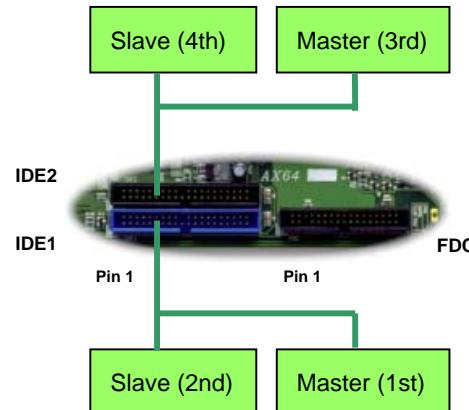
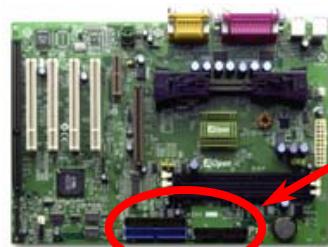


This motherboard has three 168pin DIMM sockets that allow you to install system memory up to 1.5GB. SDRAM, VCM SDRAM, Registered SDRAM are supported.

Tip: The driving capability of new generation chipset is limited due to the lack of a memory buffer (to improve performance). This makes DRAM chip count an important factor to take into consideration when you install DIMMs. Unfortunately, there is no way that the BIOS can identify the correct chip count, you need to calculate the chip count by yourself. The simple rule is: **By visual inspection, use only DIMMs which are less than 16 chips..**

Connecting IDE and Floppy Cable

Connect 34-pin floppy cable and 40-pin IDE cable to floppy connector FDC and IDE connector. The **blue connector** is IDE1 for clear identification. Be careful of the pin1 orientation. Wrong orientation may cause system damage.

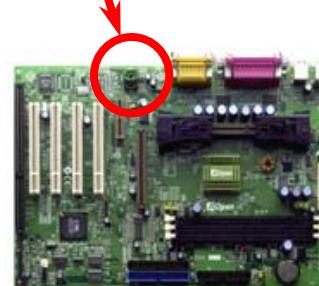


Connecting CD/Modem/ Video_Audio_IN



Pin 1

Modem-CN
Video_Audio_IN
CD-IN



The Modem-CN connector is used to connect Mono In/ Mic Out cable from internal modem card to onboard sound circuit.

The **black** connector is used to connect CD Audio cable from CDROM or DVD drive to onboard sound.

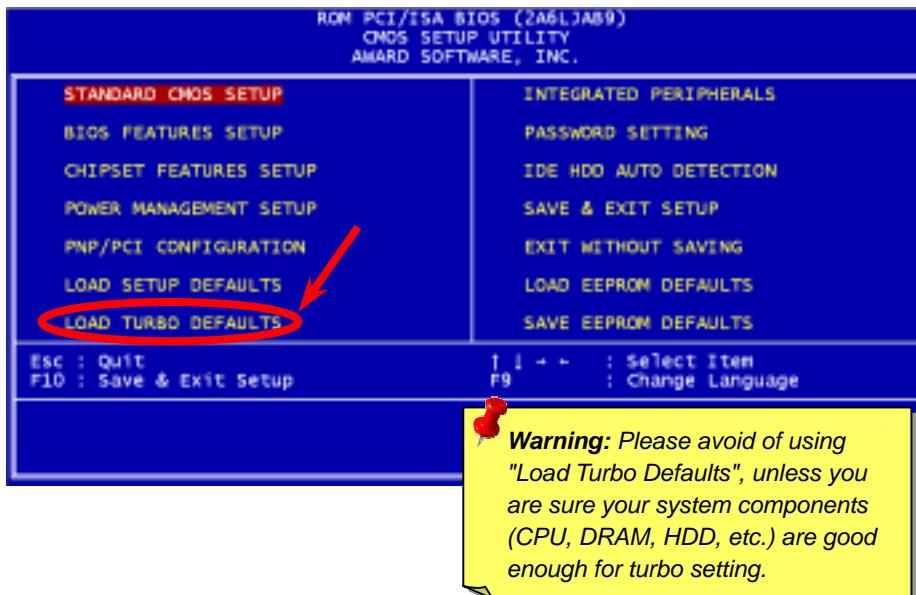
This **green** connector is used to connect MPEG Audio cable from MPEQ card to onboard sound.

Connector	Pin1	Pin2	Pin3	Pin4
Modem-CN	Mono In	GND	GND	Mic Out
CD-IN	Left	GND	GND	Right
Video_Audio_IN	Left	GND	GND	Right

Power-on and Load BIOS Setup

Del

After you finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, press during **POST (Power-On Self Test)**. Choose "Load Setup Defaults" for recommended optimal performance.



Installing Windows 98

1. First, don't install any add-on card except AGP card.
2. Enable USB Controller in BIOS Setup > Integrated Peripherals > OnChip USB, to make BIOS fully capable of controlling IRQ assignment.
3. Install Window 98 into your system.
4. Install the VIA 4 in 1 driver, which includes VIA AGP Vxd driver, IRQ routing driver, and VIA chipset function registry program.
5. Finally, Install other add-on cards and their drivers.

Autorun Menu from Bonus CD Disc

You can use the autorun menu of Bonus CD disc. Choose the utility and driver and select model name.



Installing Windows 95

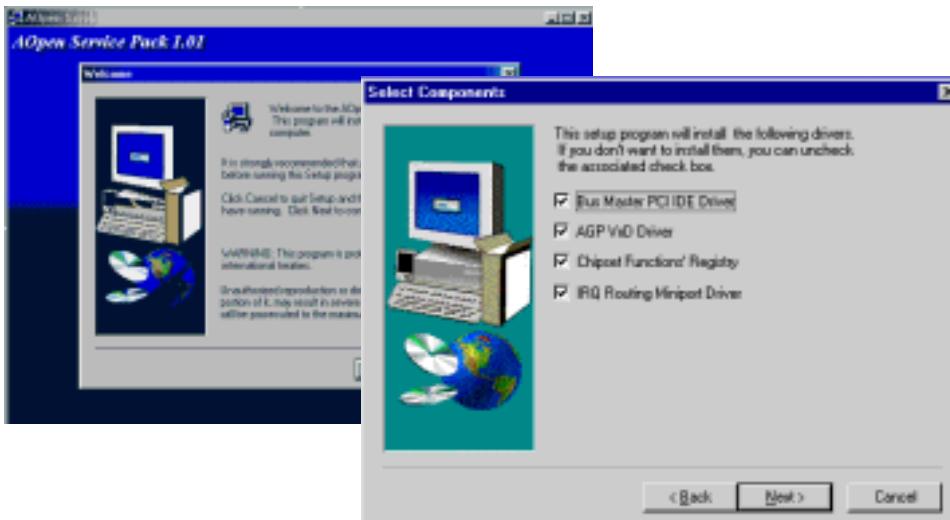
1. First, don't install any add-on card except AGP card.
2. Install Windows 95 OSR2 v2.1, 1212 or 1214 version and later with USB support. Otherwise, you need to install USBSUPP.EXE.
3. Install the VIA 4 in 1 driver, which includes VIA AGP Vxd driver, IRQ routing driver, and VIA chipset function registry program.
4. Finally, Install other add-on cards and their drivers.

Installing Windows NT

It is not necessary to install VIA 4 in 1 driver, just follow the installation guide of NT and your add-on cards

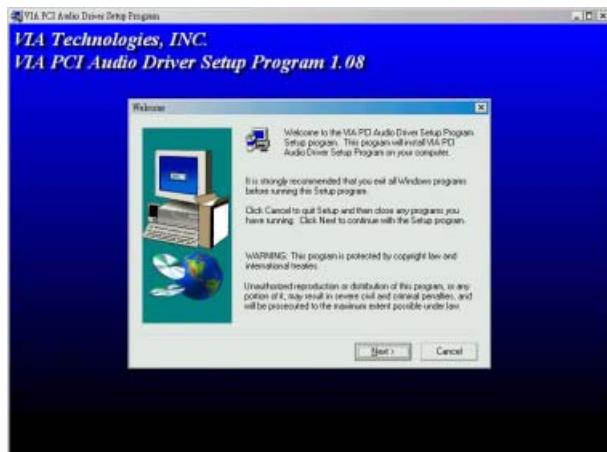
Installing VIA 4 in 1 Driver

You can install the VIA 4 in 1 driver (IDE Bus master, VIA AGP, IRQ Routing Driver, VIA Registry) from the Bonus Pack CD disc autorun menu.



Installing Onboard Sound Driver

This motherboard comes with an AD1881 AC97 CODEC and the sound controller is in VIA South Bridge chipset. You can find the audio driver from the Bonus Pack CD disc autorun menu.



BIOS Upgrade

AOpen Easy Flash is more user-friendly than traditional flash method. The BIOS binary file and flash routine are combined together and you simply run a single file to complete the flash process.

1. Get new BIOS upgrade program from AOpen's web site. For example, AX64 109.EXE. It is recommended to save it to a bootable DOS floppy diskette for error recovery.
2. Reboot the system to DOS mode without loading any memory handler (such as EMM386) or device driver. It needs around 520K free memory space.
3. Execute A:> AX64 109
DO NOT turn off the power during FLASH PROCESS
4. Reboot system and press to enter BIOS setup, Choose "Load Setup Defaults", then "Save & Exit Setup". Done!

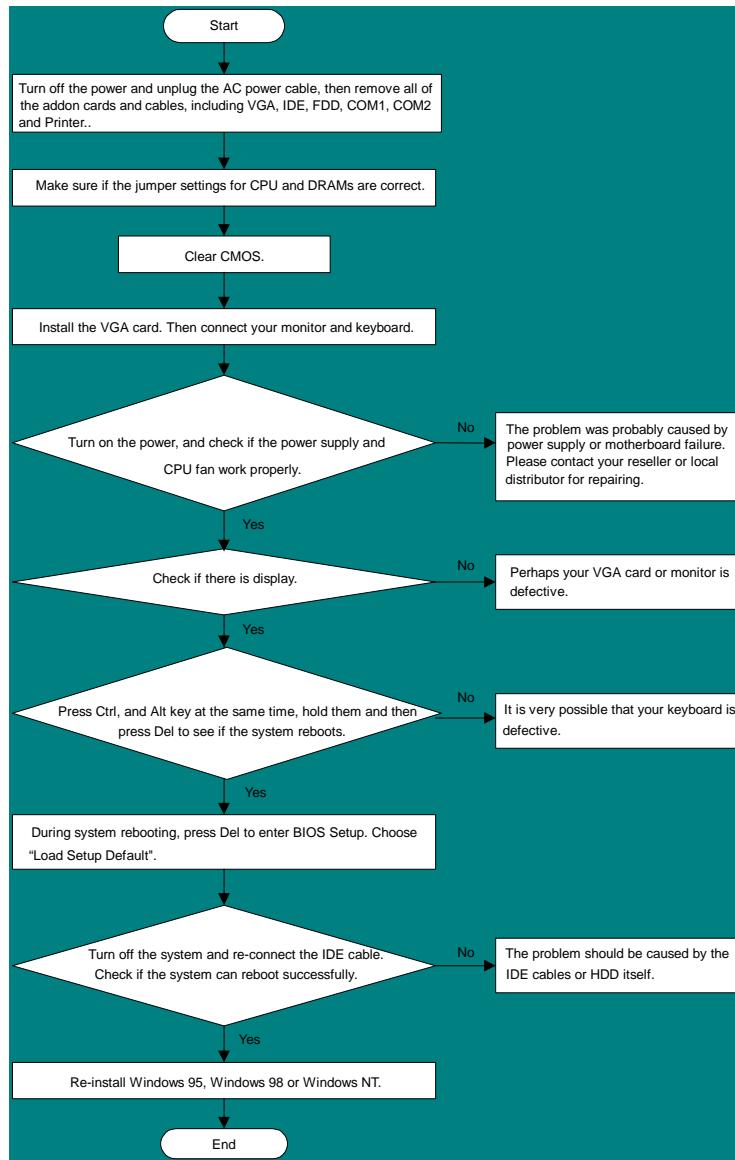


Warning: The upgrade of new BIOS will permanently replace your original BIOS content after flashing. The original BIOS setting and Win95/Win98 PnP information will be refreshed and you probably need to re-configure your system.



Troubleshooting

If you encounter any trouble to boot your system, follow the procedures accordingly to resolve the problem.



Part Number and Serial Number

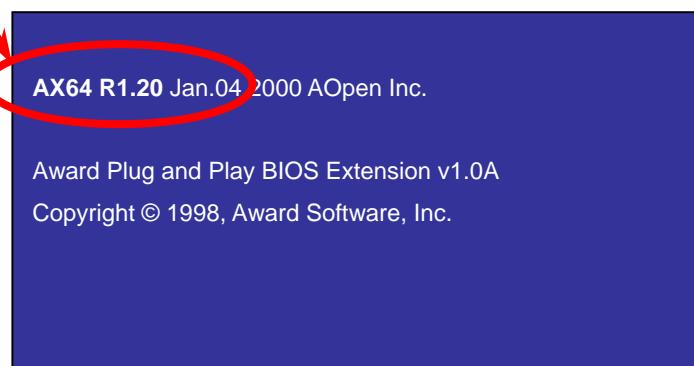
The Part Number and Serial number are printed on bar code label. You can find this bar code label on the outside packing, on ISA/CPU slot or on component side of PCB. For example:



P/N: 91.88110.201 is part number, S/N: 91949378KN73 is serial number.

Model name and BIOS version

Model name and BIOS version can be found on upper left corner of first boot screen (POST screen). For example:



AX64 is model name of motherboard, R1.20 is BIOS version.



Technical Support

Dear Customer,

Thanks for choosing AOpen products. To provide the best and fastest service to our customer is our first priority. However, we receive numerous emails and phone-calls worldwide everyday, it is very hard for us to serve everyone on time. We recommend you follow the procedures below and seek help before contact us. With your help, we can then continue to provide the best quality service to more customers.

Thanks very much for your understanding!

AOpen Technical Supporting Team

Web : <http://www.aopen.com>

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German	http://www.aopencom.de/tech/contact/techde.htm
Simplified Chinese	http://www.aopen.com.cn/tech/contact/techcn.htm

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Germany	+49 (0) 2102-157-700

1

Online Manual: Please check the manual carefully and make sure the jumper settings and installation procedure are correct.
<http://www.aopen.com.tw/tech/download/manual/default.htm>

2

Test Report: We recommend to choose board/card/device from the compatibility test reports for assembling your PC.
<http://www.aopen.com.tw/tech/report/default.htm>

3

FAQ: The latest FAQ (Frequently Asked Questions) may contain a solution to your problem.
<http://www.aopen.com.tw/tech/faq/default.htm>

4

Download Software: Check out this table to get the latest updated BIOS/utility and drivers.
<http://www.aopen.com.tw/tech/download/default.htm>

5

News Group: Your problem probably had been answered by our support engineer or professional users on the news group.
<http://www.aopen.com.tw/tech/newsgrp/default.htm>

6

Contact Distributors/Resellers: We sell our products through resellers and integrators. They should know your system configuration very well and should be able to solve your problem more efficiently than us. After all, their attitude of service is an important reference for you if next time you want to buy something else from them.

7

Contact Us: Please prepare detail system configuration and error symptom before contacting us. The **part number**, **serial number** and **BIOS version** are also very helpful.